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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,915	11/14/2003	Tsutomu Okabe	245156US3CIP	7664

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EXAMINER	
MOORE, KARLA A	

ART UNIT	PAPER NUMBER
1763	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/706,915	OKABE ET AL.	
	Examiner	Art Unit	
	Karla Moore	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Each of claims 1, 4, 7 and 8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 10 of copending Application No. 10/706,977. Although the conflicting claims are not identical, they are not patentably distinct from each other because they contain recitations drawn to the same structures and relationships between those structures, where there are only slight stylistic differences in the language that is used.

3. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 8 contains limitations drawn to "a plurality of protrusions" and "a plurality of projections". Examiner has assumed that these recitations refer to the same plurality of structures and has examined the claims accordingly. Clarification and/or correction is requested.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2002/0064439 A1 to Otaguro in view of U.S. Patent No. 6,473,993 to Tokunaga.

10. With respect to claims 1 and 4, Otaguro discloses a wafer processing apparatus in Figures 1-4, substantially as claimed and including a clean environment portion having a chamber (200; paragraph 30); therein and used for transferring a wafer between a clean box having a lid and housing the wafer and the chamber, the apparatus comprising: a first opening portion (22) through which the interior and the exterior of the chamber communicate and facing an opening of a clean box (10) so as to allow loading and unloading the wafer between the clean box and the mini-environment portion; and a door (23) that closes, when the transfer of the wafer is not performed, the first opening portion and opens, when the transfer of the wafer is performed. The door has projections (uppermost and lowermost portions as seen in sectional view of Figure 1), and when the door is positioned to substantially close the first opening portion only the projection contacts with a peripheral portion of the first opening portion (also see Figure 1).

11. However, Otaguro fails to teach the door specifically having projections that partially protrude from the outer shape of the door.

12. Tokunaga disclose the use of a plurality of projections provided on a sealing surface of a load port system for the purpose of maintaining a predetermined distance between sealing surfaces thereby allowing a flow of clean air from a mini-environment to the outside thereof. The projections are also provided for the purpose of allowing a closure/door to stop repeatedly at the same position with high precision (column 7, row 23 through column 8, row 31).

13. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a plurality of projections on the door in Otaguro in order to maintain a predetermined distance between sealing surfaces thereby allowing a flow of clean air from the mini-environment to the outside thereof and also to allow the door to stop repeatedly at the same position with high precision as taught by Tokunaga.

14. With respect to claims 4-6, Otaguro further fails to teach the clean environment as a mini-environment.

15. Tokunaga discloses the use of a mini-environment for the purpose of holding wafers in an enclosed space to thereby protect the wafers from dust particles in the atmosphere or from chemical contamination (column 1, rows 53-56 and column 2, rows 36-40)

16. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a mini-environment in Otaguro in order to hold wafers in an enclosed space to thereby protect the wafer from dust particles in the atmosphere or from chemical contamination as taught by Tokunaga.

17. With respect to claims 2 and 5, Tokunaga fails to teach a specific arrangement of the projections. However, the reference does teach that the projections are provided on a peripheral sealing surface, of which the four corners of the door would be a part. The courts have ruled that the mere rearrangement of parts which does not modify the operation of a device is prima facie obvious. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

18. With respect to claims 3 and 6, in Otaguro, in case that the door is positioned to substantially close the first opening portion, an aperture (52; paragraph 31) through which the interior and the exterior of the chamber are in communication with each other exists. Also, in Tokunaga, in case that the door is positioned to substantially close the first opening portion, an aperture (column 7, rows 51-55) through which the interior and the exterior of the chamber are in communication with each other exists.

19. With respect to claim 7, Otaguro discloses a wafer processing apparatus comprising: a chamber; a first opening portion () through which the interior and the exterior of the chamber communicate; and a door that substantially closes the first opening portion. The door has projections (uppermost and lowermost portions as seen in sectional view of Figure 1), and when the door is positioned to substantially close the first opening portion only the projection contacts with a peripheral portion of the first opening portion (also see Figure 1).

20. However, Otaguro fails to teach the door specifically having projections that partially protrude from the outer shape of the door and are made into a shape so as to suppress an influence on air flow passing through a communication path from the interior to the exterior of the chamber when comparing a case that there is not projection.

21. Tokunaga disclose the use of a plurality of projections provided on a sealing surface of a load port system for the purpose of maintaining a predetermined distance between sealing surfaces thereby allowing a flow of clean air from a mini-environment to the outside thereof. The projections are also provided for the purpose of allowing a closure/door to stop repeatedly at the same position with high precision (column 7, row 23 through column 8, row 31).

22. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a plurality of projections on the door in Otaguro in order to maintain a predetermined distance between sealing surfaces thereby allowing a flow of clean air from the mini-environment to the outside thereof and also to allow the door to stop repeatedly at the same position with high precision as taught by Tokunaga.

23. With respect to the recitation that the projections suppress an influence on air flow passing through a communication path from he interior to the exterior of the chamber when comparing a case that

there is not projection, it is noted that the courts have ruled that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).

24. With respect to claim 8, Otaguro further discloses a wafer processing apparatus, substantially as clamed and comprising: a chamber (200) having a wall portion with a window opening (22) through which wafers are received into the chamber or removed therefrom; and a door (23) configured to close the window opening.

25. However, Otaguro fails to teach the door specifically having projections a plurality of protrusions extending from an outermost perimeter thereof, the plurality of protrusions being shaped to reduce gas flow turbulence generated by opening and closing the door, wherein when the door is substantially close to the window opening, only the plurality of "protrusions" contact a surface of the wall portion to the window opening.

26. Tokunaga disclose the use of a plurality of projections provided on a sealing surface of a load port system for the purpose of maintaining a predetermined distance between sealing surfaces thereby allowing a flow of clean air from a mini-environment to the outside thereof. The projections are also provided for the purpose of allowing a closure/door to stop repeatedly at the same position with high precision (column 7, row 23 through column 8, row 31). The projections are shaped to reduce gas flow turbulence in that their presence provides an ever-present gap for air flow from a mini-environment to outside thereof.

27. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a plurality of projections on the door in Otaguro in order to maintain a predetermined distance between sealing surfaces thereby allowing a flow of clean air from the mini-environment to the outside thereof and also to allow the door to stop repeatedly at the same position with high precision as taught by Tokunaga.

28. With respect to claim 9, Tokunaga fails to teach a specific arrangement of the projections. However, the projections are taught to be provided on a peripheral sealing surface, of which the four

corners of the door would be a part. The courts have ruled that the mere rearrangement of parts which does not modify the operation of a device is prima facie obvious. In re. Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

29. With respect to claim 10, in Otaguro, in case that the door is positioned to substantially close the first opening portion, an aperture (52; paragraph 31) through which the interior and the exterior of the chamber are in communication with each other exists. Also, in Tokunaga, in case that the door is positioned to substantially close the first opening portion, an aperture (column 7, rows 51-55) through which the interior and the exterior of the chamber are in communication with each other exists.

Response to Arguments

30. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection. New rejections, taking into account Applicant's newly added amendments with respect to projections/protrusions, have been provided. Tokunaga teaches providing projections in order to provide a gap between sealing surfaces of a load port system so that a flow of air can be maintained.

Conclusion

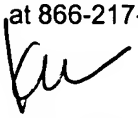
31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karla Moore
Patent Examiner
Art Unit 1763
10 November 2005